

ANTI-THEFT BRAKE LOCKING DEVICE

FIELD OF THE INVENTION

This invention relates to an anti-theft brake-locking device for vehicles, which is particularly suitable for automatic transmission vehicles. More particularly, this invention relates to a device which prevents the brake pedal from being depressed.

BACKGROUND OF THE INVENTION

The proliferation of mechanical type anti-theft devices for motor vehicles have resulted in the commercial availability of different types of anti-theft devices. One type of prior art system mechanically locks brake and accelerator by means of two independent or articulated shoes which lock the pedals. The major problem stemming from such devices is that the driver has to reach out for the pedal area or actually get down on his or her knees in order to operate the locking device and the varying distance between the brake and accelerator which can prevent the device from being installed.

More recently, some devices have been suggested which are constructed from a long rod consisting of an anti-picking material and which is provided at both ends with two shaped members that couple respectively with a pedal and with the steering wheel of the vehicle. The coupling with the steering wheel is locked using a safety lock that prevents the same from being disengaged. This device, which owing to its characteristics can be employed on traditional transmission cars as well as on automatic transmission vehicles is affected in the main by two drawbacks.

First, the connection, due to its longitudinal size and cumbersome nature is difficult to store when the device is not being utilized. Secondly, devices of this nature actually have a poor record against theft. Indeed, it is relatively easy to cut the rim of the steering wheel by means of a saw or the like. The rim is usually not a viable obstacle for thieves, and the anti-theft device can be disengaged merely pulling apart the two ends of the rim. Such devices are also not usually adaptable for automatic transmission vehicles because of their structural characteristics.

In UK patent application No. 2,091,656 an anti-theft pedal-locking device for vehicles is described comprising a first supporting member extending upwards and provided with a safety lock and with a laterally projecting member, a second supporting member, upon which the first supporting member slides, with a projecting member cooperating with the corresponding member of the first supporting member so as to lock a pedal of the vehicle when the latter member is in its lower position, while the lower end of the second supporting member may carry a base member to rest on the floor of the vehicle.

A number of United States Patents have also issued on brake locking mechanisms. U.S. Pat. No. 4,040,675 discloses a vehicle anti-theft device which maintains the braking function of the braking fluid by preventing reverse flow thereof from the wheel cylinder back to the master cylinder until an authorized procedure permits said backflow.

U.S. Pat. No. 4,493,198 discloses an anti-theft lock for a pedal operated apparatus. The invention incorporates first and second stop bodies which are arranged to clamp around the lever of a pedal. When the stop bodies are locked in place, the pedal cannot be operated unless the apparatus is restrained.

U.S. Pat. No. 4,934,492 discloses an automatic brake-locking mechanism which locks the brake of a vehicle

having a hydraulic brake system. The system incorporates a safety switch provided to operate in conjunction with the ignition switch so that the safety switch and the ignition both must be operated to an "on" position to release the auxiliary brake device to allow normal operation of the vehicle.

U.S. Pat. No. 5,040,387 similarly discloses a vehicle brake lock assembly which engages a brake pedal and which includes a U-shaped end portion which engages the brake pedal telescopically to lock the brake pedal in position.

U.S. Pat. No. 5,345,796 discloses a vehicle brake-pedal locking device which mechanically maintains the vehicle brake pedal in a depressed position to prevent the vehicle from being driven. The device includes a horizontally and vertically pivoting brake-pedal swing arm interfacing structure.

Finally, U.S. Pat. No. 5,653,133 discloses an anti-theft device for vehicles having a steering wheel and a brake. The device comprises a brake guard moveably mounted to a fixed portion of the brake, a lower elongated member which hooks to the brake guard, an upper elongated member which is locked to the lower elongated member, a wide bar spaced a distance adaptable to be placed around the steering wheel and a locking bar and a claw member. When the device is secured with two padlocks, movement of the steering wheel and the brake pedal is prevented.

While the prior art is replete with mechanisms and inventions for locking the brake pedals of a vehicle, there is no simple and easy system ever devised for swiftly securing the brake pedal in a non-depressible state without the driver or operator having to get down on his or her knees or crouch down. Such a system would be to disable a vehicle, because automobiles built since 1990 cannot start and be placed into gear without the brake pedal being depressed.

The present invention is thus directed to a brake lock mechanism which does not require the driver or vehicle operator to get down on his knees or to move beneath the vehicle and which prevent the brake from being depressed. These and other objects of the present invention will be described with reference to the following summary and detailed description.

SUMMARY OF THE INVENTION

In accordance with the present invention, a device for locking the brake of a vehicle and preventing its theft is disclosed. The invention comprises a base member for a placement on the floorboard of a vehicle beneath a brake pedal; a U-shaped housing extending downward and having a first arm attached to the base and having a second shorter arm defining a gap for receipt of a brake pedal shaft, said space between the first and second arms defining a slot for receiving the brake pedal shaft and permitting its full extension upward through said slot; and locking means associated with the second arm for locking the underside of the pedal within the slot such that the brake pedal cannot be depressed.

In a more preferred embodiment, the present invention is directed to a device for locking the brake of a vehicle and preventing its theft comprising: a base member for a placement on the floorboard of a vehicle beneath a brake pedal; a metallic U-shaped housing extending downward and having a first arm attached to the base and having a second shorter arm defining an opening for receiving of a brake pedal shaft, said space between the first and second arms defining a slot for receiving the brake pedal shaft and permitting its full extension upward through said slot, said first arm having a cylindrical opening therethrough; a rod